

Quarterly Report – Public Page

Date of Report: December 31, 2016

Contract Number: DTPH56-15-T-00010

Prepared for: DOT

Project Title: Human Centric Approach to Improve Pipeline Non-Destructive Evaluation (NDE) Performance and Reliability

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For quarterly period ending: December 31, 2016

Non-destructive evaluation (NDE) is critical to the efficient and safe operation of pipelines. These inspections, however, often contain unintentional human error, with proven collateral damage to property and persons. The objective of this project is to pilot both technology and human solutions that will address this critical deficiency.

In Phase I of this effort, Battelle experts in human factor evaluations led the investigation, and collaborated with partnering NDE vendors Mistras Group, Inc, JENTEK Sensors, Inc, and Applus RTD, to identify factors that influence NDE performance.

Battelle used the well-established Saba™ Peak Performance System accompanied by Human Performance Technology Front-end Analysis. Extensive interviews of accomplished performers of NDE, protocol reviews, field observations, and control tests with field pipe defects were conducted and systematically analyzed to identify and prioritize detrimental human shaping factors.

In the following one to two years, solutions will be developed and piloted, with Phase 2 dedicated to human interventions and Phase 3 to technology interventions.

Results and Conclusions:

The Performance Shaping Factors identified in Phase I of this project were found to be associated with four general areas of interventions – client communication, training, engagement and technology.

Each partner has been sent a RFP for development of their interventions, which must also explicitly outline how the intervention's success will be evaluated. Battelle will then

review the objectivity and logistics of the validation plan and administer the evaluation where appropriate.

Phase II is comprised of interventions in the areas of communication, training, and engagement. Phase III includes solely technology interventions. These phases occur concurrently.

Plans for Future Activity:

Battelle will work closely with partners to develop effective responses. Additionally, clients have been encouraged in the RFP to submit proposals for interventions that may not strictly adhere to the selected areas for consideration, if they feel that they have merit. Responses are expected to be provided in the next quarter of this effort, with evaluation and award occurring near the end of the quarter.